SYSTEMS AND METHODS FOR CREDIT LINE
MONITORING

BACKGROUND OF THE INVENTION

This invention relates generally to credit line monitoring and, more specifically, to credit line tracking and borrowing methods and systems.

A treasury operation of a multi-billion dollar corporation manages money for many different divisions within the corporation as well as for affiliates and other related entities. In connection with significant transactions and other operational needs, the treasury operation also secures and manages credit lines with commercial banks. At a given time, the corporation may have numerous credit lines with domestic as well international banks. Each credit line, if drawn by the company, may have its own variables such as interest rates, period, currency and so on. Additionally, for each credit line, the treasury operation maintains information regarding the borrowings, payments, conversion from or to foreign currency, and other relevant information.

Managing the complexities of these numerous credit lines is a challenging task. For example, simply managing payments for maintaining credit lines at numerous banks in many different jurisdictions and varying currencies in itself is a substantial undertaking. Ensuring that financial institutions from which such credit lines are secured are viable, by maintaining relevant credit rating information, also requires significant resources.

BRIEF SUMMARY OF THE INVENTION

The present invention facilitates efficient credit line monitoring which includes tracking borrowings as well as posting journal entries automatically for financial reporting.

In one embodiment, the present invention is a method for tracking bank credit lines and borrowing against credit lines using a Credit Line System (CLS) coupled to a centralized database. The method involves manually tracking credit ratings of a bank, requesting the bank to establish a line of credit, accessing a centralized database to obtain and maintain information regarding the line of credit, transmitting domestic and international wire information for cash movement to the

bank, and finally posting journal entries to a general ledger for financial monitoring, reporting and auditing purposes.

In another aspect, the present invention is a system for computer-based credit line monitoring. In an exemplary embodiment, the system includes at least one server system, a client system configured with a browser, a centralized database coupled to the server system to implement, manage and monitor bank credit lines drawn and undrawn and the credit ratings including credit ratings, currencies, interest rates, borrowings against credit lines, cash payments and finally posting the related journal entries.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a simplified block diagram of a Credit Line System (CLS) for tracking bank credit lines and borrowings against credit lines;

Figure 2 is an expanded version block diagram of an exemplary embodiment of server architecture of CLS;

Figure 3 shows a configuration of a database within database server 16 of server system shown in Figure 1;

Figure 4 is an exemplary embodiment of various modules as utilized in implementing CLS;

Figure 5 is an exemplary embodiment of activity process steps as implemented by CLS;

Figure 6 is an exemplary embodiment of some of the functionality of Credit Line Module;

Figure 7 is a continuation of the functionality of Credit Line Module;

Figure 8 is an exemplary embodiment of the functionality of Borrowing Module;

Figure 9 is an exemplary embodiment of the functionality of Journal Entry Module;

Figure 10 is an alternative embodiment of overall Credit Line Process Flow;

Figure 11 is an exemplary embodiment of a credit line detail report by bank;

5   Figure 12 is an exemplary embodiment of a credit line detailed report by expiration;

Figure 13 is an exemplary embodiment of a credit lines ranking report;

Figure 14 is an exemplary embodiment of a credit line report;

Figure 15 is an exemplary embodiment of a GECC ratings report;

10   Figure 16 is an exemplary embodiment of a credit line accrual report by bank name;

Figure 17 is an exemplary embodiment of a credit line accrual report by pay type;

Figure 18 is an exemplary embodiment of a credit line payment report.

15   Figure 19 is an exemplary report of a Gateway ACH report;

Figure 20 is an exemplary embodiment of a Gateway Wire report;

Figure 21 is an exemplary embodiment of a Borrowing Detailed Report By Due Date;

20   Figure 22 is an exemplary embodiment of a Borrowing Detailed Report By Expiration;

Figure 23 is an exemplary embodiment of a Borrowing Detailed Report By State/Country;

Figure 24 is an exemplary embodiment of a Borrowing Detailed Report By Unused Credit Lines;

25   Figure 25 is an exemplary embodiment of a Borrowing Detailed Report By Value Date;

Figure 26 is an exemplary embodiment of capacity available report by bank;

Figure 27 is a borrowings repayment report;

Figure 28 is an exemplary embodiment of a borrowings interest paid report by currency;

Figure 29 is an exemplary embodiment of a borrowings domestic ACH report;

Figure 30 is an exemplary embodiment of a borrowings domestic wire report;

Figure 31 is an exemplary embodiment of a borrowings interest accruals report in local currency; and

Figure 32 is an exemplary embodiment of a composite rate repot.

DETAILED DESCRIPTION OF THE INVENTION

The present invention, in one aspect, is a computer-based method for credit line assessment.

Exemplary embodiments of systems and processes that facilitate integrated network-based electronic reporting and workflow process management related to credit line assessment are described below in detail. The systems and processes facilitate, for example, electronic submission of information using a client system, automated extraction of information, and windows-based assessment reporting.

The systems and processes are not limited to the specific embodiments described herein. In addition, components of each system and each process can be practiced independent and separate from other components and processes described herein. Each component and process also can be used in combination with other components and processes.

The application resides on an IIS Server with a SQL Server 7.0 database. In an exemplary embodiment, the application is web enabled and being run on a business entity's intranet. In yet another embodiment, the application is fully

accessed by individuals having an authorized access outside the firewall of the business entity through the Internet. In a third exemplary embodiment, the application is being run in a windows NT environment. The application is flexible and designed to run in a various different environments without compromising any
5   major functionality.

Figure 1 is a simplified block diagram of a Credit Line System (CLS) 10 for tracking bank credit lines and borrowings. System 10 includes a server system 12 and a plurality of client systems 14 connected to server system 12. In one embodiment, client systems 14 are computers including a web browser, and server
10   system 12 is accessible to client systems 14 via the Internet. Client systems 14 are interconnected to the Internet through many interfaces including a network, such as a local area network (LAN) or a wide area network (WAN), dial-in-connections, cable modems and special high-speed ISDN lines. In another embodiment, client systems 14 could be any device capable of interconnecting to the Internet including a web-
15   based telephone or other web-based connectable equipment. A database server 16 is connected to a centralized database 20 containing product related information on a variety of products, as described below in greater detail, is stored on server system 12 and can be accessed by potential users at one of client systems 14 by logging onto server system 12 through one of client systems 14.

20   In one embodiment, server system 12 is coupled to computers 14 via a WAN or LAN. A user may dial or directly log on to an intranet or the Internet to gain access. Each computer 14 includes an interface for communicating with server system 12. The interface allows a user to input data and to receive data relating to the request. A computer-based tool for credit line assessment, as described below in more
25   detail, is stored in server system 12 and can be accessed by a user at server 12 or any one of computers 14.

Server system 12 is configured to receive a request to establish or expand an applicant's line of credit, to access the applicant's current credit exposure and to calculate the applicant's eligibility for establishing or expanding the line of
30   credit. Current credit exposure includes any information relevant to an applicant's credit history, including, but not limited to, credit line and borrowing information. Server system 12 is further configured for reporting the applicant's eligibility for establishing or expanding the line of credit. The interface allows the user or applicant to input data relating to the request and to receive eligibility output. In one

embodiment, the user or applicant is a bank, company, organization or an individual applicant.

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Figure 2 is an expanded version block diagram of an exemplary embodiment of server architecture of a Credit Line System (CLS) 22. Components in system 22 identical to components of system 10 (shown in Figure 1) are identified in Figure 2 using the same reference numerals as used in Figure 1. System 22 includes a server system 12 and client system 14. Server system 12 includes a database server 16 and further includes an application server 24, a web server 26, a fax server 28, a directory server 30, and a mail server 32. A disk storage unit 34 is coupled to

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database server 16 and directory server 30. Servers 16, 24, 26, 28, 30, and 32 are coupled in a local area network (LAN) 36. In addition, a system administrator's workstation 38, a user or credit analyst's workstation 40, and a supervising officer's workstation 42 are coupled to LAN 36. Alternatively, workstations 38, 40, and 42 are coupled to LAN 36 via an Internet link or are connected through intranet.

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Each workstation, 38, 40, and 42 is a personal computer including a web browser. Although the functions performed at the workstations typically are illustrated as being performed at respective workstations 38, 40, and 42, such functions can be performed at one of many personal computers coupled to LAN 36. Work stations 38, 40, and 42 are illustrated as being associated with separate

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functions only to facilitate an understanding of the different types of functions that can be performed by individuals having access to LAN 36.

In another embodiment, server system 12 is configured to be communicatively coupled to various banks 44 and to third parties, e.g., internal or external auditors 46 via an ISP Internet connection 48. The communication in the

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exemplary embodiment is illustrated as being performed via the Internet, however, any other wide area network (WAN) 50 type communication can be utilized in other embodiments, i.e., the systems and processes are not limited to being practiced via the Internet. In addition, and rather than a WAN, a local area network could be used in place of the WAN.

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In the exemplary embodiment, each outside bank or a business entity 44 has a workstation 54. One of the client systems includes a senior manager's workstation 56 located at a remote location or located overseas. Work stations 54 and 56 are personal computers including a web browser. Also, work stations 54 and 56 are configured to communicate with server system 12. Furthermore, fax server 28

communicates with outside banks 44 and any of the remotely located client systems including a client system 56 via a telephone link. Fax server 28 is configured to communicate with other client systems 38, 40, and 42 as well.

Figure 3 shows a configuration of database 20 within database server 16 of server system 12 shown in Figure 1. Database 20 is coupled to several separate components within server system 12, which perform specific tasks.

Server system 12 includes a collection component 64 for collecting information from users into centralized database 20, a tracking component 66 for tracking information, a displaying component 68 to display information, a receiving component 70 to receive a specific query from client system 14, and an accessing component 72 to access centralized database 20. Receiving component 70 is programmed for receiving a specific query from one of a plurality of users. Server system 12 further includes a processing component 76 for searching and processing received queries against data storage device 34 containing a variety of information collected by collection component 64. An information fulfillment component 78, located in server system 12, downloads the requested information to the plurality of users in the order in which the requests were received by receiving component 70. Information fulfillment component 78 downloads the information after the information is retrieved from data storage device 34 by a retrieving component 80. Retrieving component 80 retrieves, downloads and sends information to client system 14 based on a query received from client system 14 regarding various alternatives.

Retrieving component 80 further includes a display component 84 configured to download information to be displayed on client system's graphical user interface and a printing component 88 configured to print information. Retrieving component 80 generates various reports requested by the user through client system 14 in a pre-determined format. System 10 is flexible to provide various alternative types of report and is not constrained to particular options set forth in any particular embodiment.

CLS 10 is a searchable database 20 built in SQL server, which is divided into three main sections that interconnect. The first section is a Bank Information Section 90. Every bank has a basic entry that lists the name of a bank, the contact person, location, areas of expertise, discount/other financial terms, business or location of the bank. The second section is a Credit Line Information Section 92. Credit lines obtained by the corporation are linked to the internal system

of each of the bank. Basic information is collected, such as a total credit line, when extended, what are the fees being paid for the credit line, interest rate on the credit line, and so on. CLS 10 generates different reports, such as total fees and related matters by business, location, practice area, etc. The third section of CLS, Borrowings/Repayment Information Section 96, includes information on Borrowings/ Repayments. This section tracks information on repayment amount against the specific borrowing from each bank, date the payment was made, amount credited to interest as well as principal, if any and other related information. Bank Information Section 90, Credit Line Information 92 and Borrowings/Repayment Information Section 96 are all integrated together to provide comprehensive information. Updating information within one section also automatically updates the relevant information in other sections of the database to maintain integrity.

The architectures of system 10 as well as various components of system 10 are exemplary only. Other architectures are possible and can be utilized in connection with practicing the processes described below.

Figure 4 is an exemplary embodiment of various modules as utilized in implementing CLS 10. CLS 10 includes a Credit Line Module 150, a Borrowing Module 160 and a Journal Entry Module 170 of Credit Line System (CLS) 10. Credit Line Module 150, Borrowing Module 160 and Journal Entry Module 170 are integrated together to perform several comprehensive functions.

Figure 5 is an exemplary embodiment of activity process steps as implemented by CLS 10. The business entity, contacts a commercial bank by phone 174 either to establish a credit line or to change a credit line. The business entity may be a remote individual applicant, a company, or an organization. CLS 10 processes information 180 obtained manually from various commercial banks on an on-going basis and stores appropriate information in database 20. Database 20 has information about various banks' credit ratings as well as their financial condition. System 10 accesses 184 database 20 to obtain and maintain 190 information through Credit Line Module 150 (shown in Figure 4) about current credit line commitments, history, and amount available for borrowing from each institution. System 10 user manually requests borrowing against credit line from bank 200, receives 208 borrowing approval from commercial banks, and finally obtains / maintains 214 real time current borrowings and the history relating to each credit line through Borrowing Module 160 (shown in Figure 4). Commitment fees are paid 216 to each bank on a quarterly basis

for the credit line. System 10 transmits 220 domestic as well as international wire information for cash movement to ensure that each bank is paid on a periodic basis. Once the banks are paid, system 10 transmits borrowing journal entries 230 to the general ledger through Journal Entry Module 170 (shown in Figure 4).

5   I.   CREDIT LINE MODULE 150

Credit Line Module 150 addresses credit application, approval and tracking process.

The applicant's credit exposure is accessed using a central database that automatically tracks the applicant's current credit exposure information. The central database includes information relevant to an applicant's credit exposure. In a specific embodiment, the central database includes current credit line commitments, credit history, amount of available credit for borrowing, repayment history and real-time current borrowing information. As used herein, track means to monitor and/or update by the user.

In an exemplary embodiment, system 10 (shown in Figure 1) generates credit line reports. Various credit line reports are generated, including, but not limited to, management reports, credit line accrual reports, accounting reports, cash management reports, payment reports and commitment fee wire files. The credit line report is detailed by bank, expiration, originator, credit line type or any other method of detailing. The credit line accrual report is detailed by pay type, bank name or any other detailing method. In a specific embodiment, system 10 submits at least one file to a bank wire system.

Credit Line Module 150 performs several functions, some of which are described briefly in Figure 6 and Figure 7 and explained hereunder. Figures 6 and 7 describe a function type 232, a function description 234, and function dependencies 236. Each of the function types 232 are displayed to the user in user friendly screens (not shown in Figures 6 and 7). Function descriptions 234 provide brief overview of the functionality. On the other hand, function dependencies 236 provides the user with information pertaining to various dependencies which must be addressed prior to accessing a specific function. The user accesses the functionality features after the user logs on to system 10 through a system displayed log-in 240 screen with a valid user identification and a valid password.

Various functionality features of Credit Line Module 150 are:

a.   Maintain State / Country 250 features allows the user to add, update, delete and view valid state and country types.

b.   Maintain Basis Type 254, Maintain Bank Rating 256, Maintain Credit Line Type 258, Maintain Payment Type 264, and Maintain Bank 270 allow the user to add, update, delete and view a valid functionality specific to each one of these functions.

c.   Change Bank Rating History 284 permits the user to perform updates of bank rating for a specific bank.

d.   Other functionality and features of Credit Line Module 150, as described briefly in Figures 6 and 7, include Maintain Bank Contact 290, Maintain Commitment Fee 294, Add Credit Line Contract 298, Amend Credit Line Contract 302, Cancel Credit Line Contract 308, Extend Credit Line Contract 312.

e.   Other functionality and features of Credit Line Module 150, as further described in Figures 6 and 7, include Change Maturity Type 320, Merge Credit Line Contract 324, Update Notes 328, Generate Credit Line Detail Report by Bank 330, Generate Credit Line Detail Report by Expiration 334, Generate GECC/GE Credit Lines Ranking Report 340, Generate GECC Credit Lines Report 344, Generate GECS Credit Lines 350, Generate GECC Ratings Report 354, Generate Credit Line Accrual Report by Bank Name 360, Generate Credit Line Accrual Report by Pay Type 364, Generate Credit Line Payment Report 370, Generate Gateway ACH Report 374, Generate Gateway ACH File 380 which creates ACH fee payment file for submission to the bank wire system, Generate Gateway Wire 384 which lists federal wire fee payment information, and finally Generate Gateway Wire File 390 which creates wire fee payment file for submission to the bank wire system.

II.   BORROWING MODULE 160

In an exemplary embodiment, Borrowing Module 160 of system 10 generates various types of borrowing reports. Borrowing reports generated include management reports, accounting reports and cash management reports. In an alternative embodiment, the borrowing report is detailed by due date, expiration of a credit line, location, unused credit lines, value date, bank, repayment report, interest paid by currency, domestic borrowing, domestic wire report and interest report in

local currency. In a specific embodiment, system 10 inputs the reports to a bank wire system. In an alternative embodiment, system 10 (shown in Figure 1) also automatically transmits domestic and international wire for cash movements to a bank.

5   In yet another embodiment, system 10 (shown in Figure 1) generates composite rate report. Composite rate report display average rate information for each borrowing outstanding during a select period. In another exemplary embodiment, system 10 maintains reports and other records in a cross-reference file or a central database.

10   Borrowing Module 160 performs several functions, some of which are depicted in Figure 8 and briefly explained hereunder. The user accesses the functionality features after the user logs on to system 10 through a system displayed log-in screen with a valid user identification and a valid password.

           The functionality features of Borrowing Module 160, as described

15   briefly in Figure 8, include: Maintain Currency Type 400, Maintain Available Currency 404, Maintain Currency Exchange Rate 408, Maintain Borrowing Spread 412, Maintain Benchmark Description 416, Maintain Benchmark Rate 420, Maintain Fed Funds Rate 424, Add Borrowing 428, Delete Borrowing 432, Add Repayment 436, Generate Borrowing Detail Report by Due Date 440, Generate Borrowing Detail

20   Report by Expiration 444, Generate Borrowing Detail Report by State / Country 448, Generate Borrowing Detail Report by Unused Credit Line 452, Generate Borrowing Detail Report by Value Date 456, Generate Capacity Available Report by Bank 460, Generate Borrowings Repayment Report 464, Generate Borrowings Interest Paid Report by Currency 468, Generate Borrowing Domestic ACH Report 472, Generate

25   Borrowings Domestic Wire Report 476, Generate Borrowings Interest Accrual Report in Local Currency 480, and Generate Composite Rate Report 484. The capabilities of each of these functions as well as dependencies are briefly explained in Figure 8.

III.   JOURNAL ENTRY MODULE 170

           Journal Entry Module 170 performs several functions, some of which

30   are described briefly in Figure 9 and explained hereunder. Various functionality is accessed by the user after the user logs on to system 10 through a system displayed log-in screen with a valid user identification and a valid password.

The functionality features of Journal Entry Module 170, as described briefly in Figure 9 includes: Maintain Cross Reference 488, Select Transactions 492, Preview Transactions 496, Delete Transactions 500, Create Journal Entries 504, Preview Journal Entries 508, Export Journal Entries 512, Delete Journal Entries 516,

5   and View JE Text File 520. The capabilities of each of these functions as well as dependencies are briefly explained in Figure 9.

IV.   USER STEPS

Figure 10 is an alternative embodiment of Credit Line Process Flow. In this embodiment, the central database described above is maintained. More

10   specifically, Figure 10 is a flowchart for process steps executed in one embodiment of system 10 (shown in Figure 1). First, a user or applicant will log on 530 to system 10 and select an option to maintain 540 the database. In a specific embodiment, the applicant is a bank, a company or any other organization. In yet another specific embodiment, an applicant or user enters a valid user identification and valid password

15   into system 10. The user checks 544 whether a bank exists or does not exist in system 10. Where a particular bank does not exist, information about the bank is added 546 to system 10 by a user or applicant. If the bank does exist, the information about the bank is then edited 548. The information could be viewed 560 by the user relating to any bank that has been added or already exists in the system.

20   The next step involves the user checking 570 whether a credit line for a given bank exists or not. If after viewing 560 the bank, if credit line does not exist, the user adds 574 credit line to system 10. If a credit line does exist, it is edited 578 or viewed 580 by the user. The next step in the process involves determining 590 if the borrowing exists for credit line relating to a particular bank. If no borrowing

25   information exists for actual borrowings, the user adds 594 the borrowing into system 10. Where borrowing exists against a given credit line, it is viewed 596, or deleted 600, as appropriate. If the user deletes borrowing 600, the user also deletes repayment with interest 604. After viewing borrowing, the user is requested to determine 610 whether repayment exists for a given borrowing. If repayment does not exist, the

30   user adds 620 partial or full repayment with the interest as appropriate. If the repayment does exist, the user simply views repayment information 630.

In an alternative embodiment, system 10 (shown in Figure 1) maintains information beneficial to the determination of an applicant's eligibility for credit within the central database described above. The information includes, but is not

limited to, currency types, currency exchange rates, descriptions of applicants, exchange rates, federal funds rates, basis types, bank ratings, credit line types, payment types, bank information, bank rating history, bank contacts, journal entries and commitment fee information. Any currency type is included. An example of a currency type includes, but is not limited to, Euro legacy currency. Maintaining basis types include, but is not limited to, allowing a user or applicant to add a basis type. Maintaining bank information includes, but is not limited to, allowing a user or applicant to change a bank name and update notes.

System 10 (shown in Figure 1) previews a transaction in an alternative embodiment. Previewing a transaction includes displaying the record in the transaction file that is selected by using the cross-reference file and data parameters. If the selection criteria include unwanted transactions, a delete function is used to eliminate them.

After log-on authentication 530, System 10 also offers menu choice options for generating Credit Line Reports 640 as well as Generating Borrowing Reports 650. Generate Credit Line Reports 640 permits the user to Generate Management Reports 654, Generate Accounting Reports 656, and Generate Cash Management Reports 658. System 10 allows the user to Generate Commitment Fee Wire Files 660 and to Submit Wire File to Bank Wire System 670. Similarly, Generate Borrowing Reports 650 permits the user to Generate Management Reports 674, Generate Accounting Reports 676, and Generate Cash Management Reports 678. Generate Cash Management Reports 678 is linked to Input Bank Wire Data to Bank Wire System 680, directly.

V.   SYSTEM GENERATED REPORTS

As discussed in Figures 6, 7, 8, and 9, system 10 generates a variety of reports including Credit Line Detail Report by Bank 330, Credit Line Detail Report by Expiration 334, GECC/GE Credit Lines Ranking Report 340, GECC Credit Lines Report 344, GECS Credit Lines 350, GECC Ratings Report 354, Credit Line Accrual Report by Bank Name 360, Credit Line Accrual Report by Pay Type 364, Credit Line Payment Report 370, Gateway ACH Report 374, Gateway ACH File 380 which creates ACH fee payment file for submission to the bank wire system, Gateway Wire 384 which lists federal wire fee payment information, and finally Gateway Wire File 390 which creates wire fee payment file for submission to the bank wire system.

Although some of these reports have been described in terms of various specific embodiments, it is not intended that these reports be limited to these embodiments. Modifications within the spirit of invention will be apparent to those skilled in the art.

Figure 11 is an exemplary embodiment of credit line detail report by bank 330. This report displays selected bank and credit line information by bank name. Report 330 identifies a bank name 700, whether the bank is a foreign or a domestic bank 704, and also a bank rating code 708. Additionally, the report also identifies the credit line amount for GE 712, GECC 714 and GECS 720 in millions of dollars. A commitment fee in basis points 722 is also identified on the report. The report further identifies a calculation code 728, an effective date 730, and a termination date 734 of the credit line.

Figure 12 is an exemplary embodiment of a credit line detailed report by expiration 334. Report 334 displays selected bank and credit line information sorted by expiration date. Normally, report 334 is run on a monthly basis for management audit purposes. In an exemplary embodiment, report 334 identifies a bank code 740, a bank name 742, a credit line maturity type 744, a credit line amount for GE 746, GECC 748 and GECS 750. The report further identifies a commitment fee in basis points 756 as well as a termination date 760 of the credit line. The user has an option to insert any notes on this report, which are reflected against each bank. The report can be sorted in many different ways to improve the efficiency and utilization of the data.

Figure 13 is an exemplary embodiment of credit lines ranking report 340. This report displays a total credit line amount originated against each bank by entity. The content of the report includes a bank name 770, credit lines originators such as GECC 772 and GE 774, total credit lines 778 originated by GECC 772 and GE 774 with maturity type greater than one year, and some other relevant information. For example, in an exemplary embodiment the report identifies that Bank of America 780, with whom GECC 772 has originated credit line of $2 billion and GE 774 has originated credit line of $200 million, has extended a total credit line of $2.2 billion.

Figure 14 is an exemplary embodiment of a credit line report 344 of GECC 772. Report 344 analyzes the credit lines originated by GECC 772 by credit types for domestic and international banks. Report 344 identifies a credit line type

790, a total credit line amount for domestic banks 794, a number of domestic banks involved in providing the total domestic credit line 798, a total credit line amount for international banks 800, a number of international credit lines 802, a total domestic and international credit line amount 806 and a number of domestic and international

5   credit lines 810. The report further identifies total commitment fees in dollars 812 as well as commitment fees in basis points 816.

Figure 15 is an exemplary embodiment of GECC ratings report 354. Report 354 analyzes credit lines of GECC 772 by bank rating for domestic and international bank as of a specific date 828. For example, report 354 identifies that,

10   16.50% of the total credit lines 830 as of December 31, 1999 were provided by domestic and international banks having a credit rating of "A" 834. In other words, out of $30.970 billion dollars of total credit lines 840 outstanding as of December 31, 1999, $5.110 billion dollars of credit lines 842 were provided by domestic and international banks having a credit rating of "A" 834.

15   Figure 16 is an exemplary embodiment of credit line accrual report by bank name 360. This report displays commitment fee accruals for each credit line contract by a bank name 850 for a designated period 852. The report identifies a bank name 850, a payment type 854, cash management's model number 856, a fee accrual amount in U.S. dollars 860, a credit line amount 864, a commitment fee in basis

20   points 866, number of days in the period 868, number of month-days and year-days used in the calculation, an effective date of the credit line contract 870, and a termination date 874 of the credit line contract.

Figure 17 is an exemplary embodiment of credit line accrual report by pay type 364. Report 364 displays commitment fee accruals 880 for each credit line

25   contract 882 by a payment type 884 for a designated period 886. This report is similar to the report in Figure 16 and can be interpreted accordingly.

Figure 18 is an exemplary embodiment of a credit line payment report 370. Report 370 displays commitment fee payments for each credit line contract by payment type for designated period. Report 370 is run quarterly or at such frequent

30   periods as needed by the management. It includes a payment type 890, a bank identification number 892, cash management model number 894, a bank name 896, and a fee payment amount 898 in U.S. dollar for each bank.

Figure 19 is an exemplary report on Gateway ACH report 374. This report displays the payment information in the Gateway ACH file. Report 374 is run quarterly. It is important that a credit line payment report and payment data to the credit line payment table is posted prior to running report 374. Report 374 includes funds transfer type 900, a transfer model identification number 902, an amount 904, which is a commitment fee amount in U.S. dollars, and a value date 908 used by the bank for its internal calculations.

Figure 20 is an exemplary embodiment of Gateway Wire report 384. Report 384 displays the payment information in the Gateway Wire file. Report 384 is run on a quarterly basis. Report 384 also includes a funds transfer type 910, a transfer model identification number 912, an amount of commitment fees in U.S. dollars 914, and a value date 920 used by bank for calculations.

Borrowing Module 160 of system 10 also generates a variety of management reports including Borrowing Detail Report by Due Date 440, Borrowing Detail Report by Expiration 444, Borrowing Detail Report by State / Country 448, Borrowing Detail Report by Unused Credit Line 452, Borrowing Detail Report by Value Date 456, Capacity Available Report by Bank 460, Borrowings Repayment Report 464, Borrowings Interest Paid Report by Currency 468, Borrowing Domestic ACH Report 472, Borrowings Domestic Wire Report 476, Borrowings Interest Accrual Report in Local Currency 480, and Composite Rate Report 484.

Figure 21 is an exemplary embodiment of Borrowing Detail Report By Due Date 440. This report displays selective borrowing information by due date. For example, report 440 identifies an originator of credit line 930, a borrower 932, a bank name 934, a currency type 936 such as Euro currency or Japanese Yen, a borrowed amount in local currency 940, an exchange rate 942 at the time of borrowing, borrowed amount in U.S. dollar 944, a due date 946, and any comments 948 on borrowings.

Figure 22 is an exemplary embodiment of a Borrowing Detail Report By Expiration 444. Report 444 displays selected borrowing information by credit line termination date. This report is similar to report 440 depicted in Figure 21. However, report 444 adds some additional information such as a date 950 that funds are available, a maturity date 952, U.S. dollar amount available for borrowing 954 and a credit line termination date 956.

Figure 23 is an exemplary embodiment of Borrowing Detail Report By State/Country 448. Report 448 displays selected borrowing information by a state/country 960 and a currency type 962. It also segregates the report in different ways to make it user friendly.

Figure 24 is an exemplary embodiment of Borrowing Detail Report By Unused Credit Lines 452. Report 452 displays selected borrowing information 964 by unused credit line 968. Report 452 is printed on an as needed basis. This report is similar to reports 444 and 448, as identified in Figures 22 and 23 respectively.

Figure 25 is an exemplary embodiment of Borrowing Detail Report By Value Date 456. Report 456 displays selected borrowing information 970 by a value date 972.

Figure 26 is an exemplary embodiment of capacity available report by bank 460. Report 460 displays unused credit line information by bank name. For example, in a specific embodiment report 460 displays a credit line identification number 976, an originator of a credit line 978, a bank name with which the credit line exists 980, a state or a country code 982, and an unused credit line 984 in U.S. dollars with a termination date 986 of a credit line.

Figure 27 is a borrowings repayment report 464. Report 464 displays selected borrowing repayment information by currency type within payment type. For example, report 464 identifies a particular payment type 990. Either ACH or wire 990, a bank identification code, a bank name 994, a currency code 996, a principal repayment amount in local currency 998, an interest repayment amount in local currency 1000, and a total payment 1002, which includes principal repayment as well as interest repayment in total currency. Reviewing report 464, the user notes that Citibank has been paid approximately $100 million in local currency with a total interest payment of $119,444.44, and the payment type was ACH.

Figure 28 is an exemplary embodiment of borrowings interest paid report by currency 468. Report 468 displays interest paid on borrowings information for a selected period 1008 by currency 1010 and a spread 1012.

Figure 29 is an exemplary embodiment of borrowings domestic ACH report 472. Report 472 displays domestic ACH funds transfer information for the repayment date. Report 472 also displays a funds transfer type 1014, total payment

1016 (which is broken down into principal and interest components), a repayment date 1018 and a value date 1020 which is the date used by banks for their calculations.

Figure 30 is an exemplary embodiment of borrowings domestic wire report 476. Report 476 displays domestic wire funds transfer information for the repayment date. The report identifies cash management's funds transfer code (type) 1022, transfer model I.D. 1024 which identifies cash management's model identification number, principal payment in local currency 1026, an interest payment in a local currency 1028, and a total payment 1032 which includes principal payment as well as interest payment in local currency. Report 476 also identifies a repayment date 1034 as well as a value date 1036.

Figure 31 is an exemplary embodiment of borrowings interest accruals report in local currency 480. Report 480 displays interest accrual information for a selected period. For example, report 480 identifies an originator of the credit line 1040, a borrower's name 1042, name of a bank 1044, a currency type 1046, an amount borrowed 1050 in local currency, interest accrued to date 1052, a borrowing spread 1056, a benchmark rate 1060, days outstanding in period 1062, a basis type 1066, a value date 1070, and a due date or a maturity date (not shown).

Figure 32 is an exemplary embodiment of composite rate report 484. Report 484 displays average rate information for each borrowing outstanding during the selected period. It identifies a name of a borrower 1080, a borrowing identification number 1082, credit line identification 1084, a currency type 1086, a start date (a date that funds are available) 1090, a maturity date (which is a due date) 1092, a loan period 1094, an ending balance 1096 which is the outstanding balance in local currency at the end of a report period, number of days outstanding in a report period 1098, and an average balance 1100 including interest expense 1102 and average rate 1104.

Credit Line Module 150, Borrowing Module 160 as well as Journal Entry Module 170, as disclosed in Figures 6, 7, 8 and 9 also generate other reports. These reports can be rearranged in different ways to meet the expectations of the management and to implement proper controls in the business operations.

While the invention has been described in terms of various specific embodiments, those skilled in the art will recognize that the invention can be practiced with modification within the spirit and scope of the claims.